GOVERNMENT OF INDIA
DRINKING WATER AND SANITATION
LOK SABHA

STARRED QUESTION NO:274
ANSWERED ON:17.12.2015
Reverse Osmosis Plants
Singh Dr. Krishn Pratap

Will the Minister of DRINKING WATER AND SANITATION be pleased to state:

(a) the details of various technologies/ techniques for the treatment of water;
(b) whether the Government has explored the possibility of setting up of Reverse Osmosis Plants to meet the demand of drinking water, if so, the details thereof;
(c) whether the Government also proposes to popularise the use and also put up community based Reverse Osmosis Water Treatment Plants in various States across the country;
(d) if so, the details thereof, State/ UT-wise along with the action plan drawn in this regard; and
(e) the steps being taken/proposed to be taken by the Government to ensure availability of safe drinking water in the country?

Answer

MINISTER OF DRINKING WATER & SANITATION
(SHRI BIRENDER SINGH)
(a) to (e): A Statement is laid on the table of the House.

Statement referred to in the reply to Lok Sabha Starred Question No. 274 (14th Position) due for answer on 17/12/2015
(a) Technology for water treatment vary with the chemical and bacteriological contaminantion in raw-water, to be treated for providing safe drinking water. In conventional piped water supply schemes using surface water source, the water treatment plant may comprise of unit processes like aeration, sedimentation, clariflocculation, filtration and disinfection. In piped water supply schemes based on safe groundwater, the general unit processes adopted are sedimentation and disinfection. If the groundwater is found turbid, then a filtration unit is also included. Major technologies for removal of arsenic are adsorption, co-precipitation, nano-technology. For fluoride removal, the technology include processes like electrolytic de-fluoridation, adsorption and nano-technology. Salinity removal, in general, is achieved through Reverse Osmosis (RO) technology. Nitrate removal can be achieved through ion-exchange, RO and biological de-nitrification. Iron removal technologies include aeration and terracotta filtration.
(b) to (d): Rural drinking water supply is a State Subject. Choice of technology, including RO, is done only by the State Government. The Ministry facilitates State Governments technically through publications such as Handbook on Drinking Water Treatment Technologies. Further, a High Level Committee has been constituted by the Ministry, which is chaired by Dr. R.A. Mashelkar. The Committee shortlists the technologies submitted to the Ministry and provides the States access to basket of appropriate technologies. State Governments have not fully uploaded the status of installation of RO plants into the online Integrated Management Information System (IMIS) of the Ministry. However, during various discussions, review meetings, video conferences and data on IMIS, 7,368 Community Water Purification Plants, mostly using RO technology, have been reported installed till date. State-wise number of such Plants commissioned so far is given in Annexure. Since prolonged consumption of arsenic or fluoride contaminated water may result in serious health problems, the States have been advised to commission Community Water Purification Plants in all the remaining arsenic and fluoride affected habitations by March 2017. The States may choose any technology, including RO technology, as the option for community water purification plants.
(e): The Ministry has prepared a Strategy Plan to provide safe drinking water to 90% of the rural population of the country preferably through surface water based piped water supply schemes by the year 2022 as a long-term sustainable solution, subject to availability of adequate funds.